Operator Training

Statistical Inventory Reconciliation

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health
and Environmental Control

Pressurized Lines

Release detection regulations for piping state that there must be a method to look for the “big” leak (3.0 gallons per hour continuously) as well as the “little” leak (either 0.2 gallons per hour monthly or 0.1 gallons per hour yearly). Statistical Inventory Reconciliation can satisfy the requirement for the little leak. You will have an additional method line leak detection to look for the big leak.

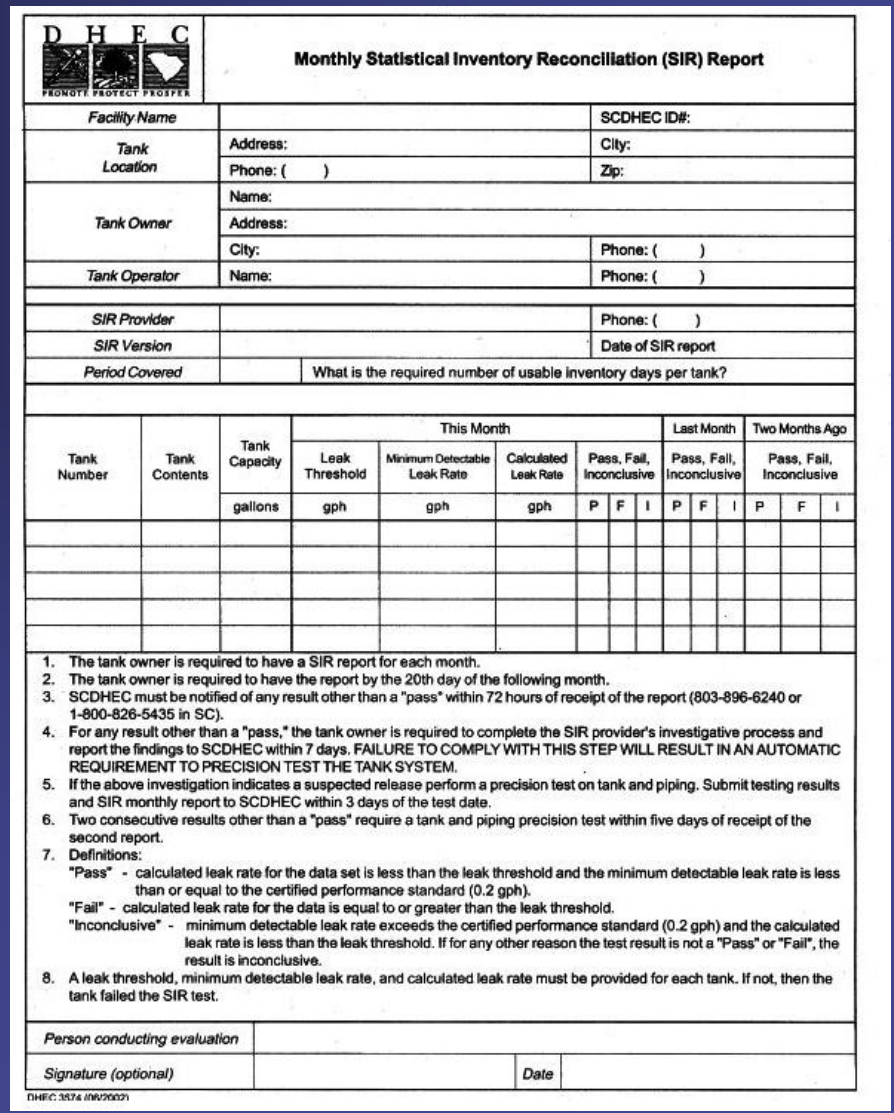
Pressurized Lines

There are several ways to look for the big leak as well as the little leak:

- Big Leak = 3.0 gallons per hour continuously
  - Mechanical Line Leak Detector (LLD)
  - Electronic Line Leak Detector (ELD)
- Little Leak = 0.2 gallons per hour monthly or 0.1 gallons per hour annually
  - Monthly Statistical Inventory Reconciliation (0.2 gph monthly)
  - Monthly Interstitial Monitoring (0.2 gph monthly)
  - Monthly monitoring with an Electronic Line Leak Detector (0.2 gph or 0.1 gph)
  - Annual Line Tightness Test (0.1 gph yearly)

Statistical Inventory Reconciliation (SIR)

Because of the data collected, Statistical Inventory Reconciliation is a test of the entire UST system…tanks and piping. Losses are reported regardless of where they come from. So, whether you are losing fuel as a result of a tank leak, a line leak, equipment malfunction or theft, you will still get a FAIL result. All SIR reported information that applies to tanks, applies to piping as well.



D H E C

PROMOTE PROTECT PROSPER

Monthly Statistical Inventory Reconciliation (SIR) Report

Facility Name		SCDHEC ID#:
Tank Location	Address:	City:
	Phone: ( )	Zip:
Tank Owner	Name:	
	Address:	
	City:	Phone: ( )
Tank Operator	Name:	Phone: ( )
SIR Provider		Phone: ( )
SIR Version		Date of SIR report
Period Covered	What is the required number of usable inventory days per tank?	

Tank Number	Tank Contents	Tank Capacity	This Month						Last Month			Two Months Ago		
			Leak Threshold	Minimum Detectable Leak Rate	Calculated Leak Rate	Pass, Fail, Inconclusive			Pass, Fail, Inconclusive			Pass, Fail, Inconclusive		
		gallons	gph	gph	gph	P	F	I	P	F	I	P	F	I

1. The tank owner is required to have a SIR report for each month.
2. The tank owner is required to have the report by the 20th day of the following month.
3. SCDHEC must be notified of any result other than a "pass" within 72 hours of receipt of the report (803-896-6240 or 1-800-826-5435 in SC).
4. For any result other than a "pass," the tank owner is required to complete the SIR provider's investigative process and report the findings to SCDHEC within 7 days. FAILURE TO COMPLY WITH THIS STEP WILL RESULT IN AN AUTOMATIC REQUIREMENT TO PRECISION TEST THE TANK SYSTEM.
5. If the above investigation indicates a suspected release perform a precision test on tank and piping. Submit testing results and SIR monthly report to SCDHEC within 3 days of the test date.
6. Two consecutive results other than a "pass" require a tank and piping precision test within five days of receipt of the second report.
7. Definitions:
   "Pass" - calculated leak rate for the data set is less than the leak threshold and the minimum detectable leak rate is less than or equal to the certified performance standard (0.2 gph).
   "Fail" - calculated leak rate for the data is equal to or greater than the leak threshold.
   "Inconclusive" - minimum detectable leak rate exceeds the certified performance standard (0.2 gph) and the calculated leak rate is less than the leak threshold. If for any other reason the test result is not a "Pass" or "Fail", the result is inconclusive.
8. A leak threshold, minimum detectable leak rate, and calculated leak rate must be provided for each tank. If not, then the tank failed the SIR test.

Person conducting evaluation			
Signature (optional)		*Date*	

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